



EMOC Project Presentation

Montgomery County, Maryland
Contract No. 7504510027 Task Order WD-01

Baker and Associates
July 20, 2009

Project Team

■ **Montgomery County**

- **Rassa Davoodpour – Manager**
 - **Department of General Services, Office of Planning and Development**
- **Hamid Omidvar – Chief**
 - **Department of General Services, Office of Planning and Development**

■ **Baker & Design Team**

- **Peter Schmidt, AIA, LEED AP – Project Manager**
- **Greg Shipley, AIA, LEED AP – Project Architect**
- **Steve Radomski, AIA, LEED AP – Facilities Architect**
- **Shawn Benjaminson, PE, LEED AP – Civil Engineer**
- **Michele Monde, PE, PMP – Environmental Manager**
- **John F. Parker, CMLI – Landscape Architect**

- **EMOC Facility – Casey 7 Proposed Location**
 - 200 Bus Capacity
 - Heavy Equipment Fleet
 - Approximately 110,000 SF
- **Highway Service Facilities – Casey 6 & R.O. Proposed Location**
 - Salt Storage
 - Covered Equipment Sheds
 - Materials, Soil & Gravel Storage

Project Major Goals

- **Design a functional, state of the art facility**
- **Design a Green/Sustainable facility**
- **Design a project that fits best in the fabric of community**
 - Traffic
 - Sound
 - Pollution
 - Architecture
- **Deliver the project on time and within budget**

- **Two Projects – Schedule Overview**
 - **EMOC – Casey 7**
 - **Design Complete – June 9, 2010**
 - **Construction Complete – January 18, 2012**
 - **Highway Services – Casey 6**
 - **Design Complete – March 3, 2010**
 - **Construction Complete – June 1, 2011**

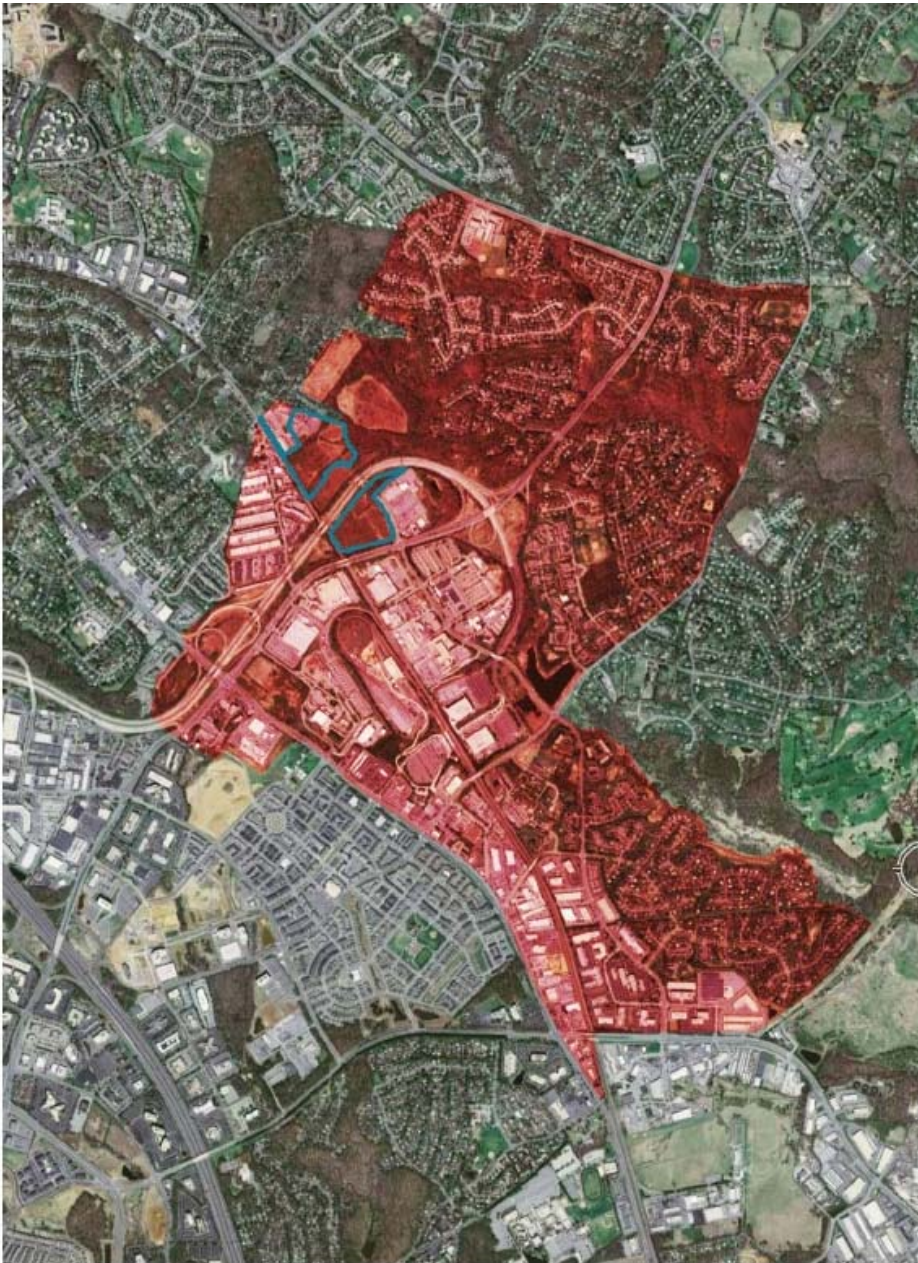
- **Sustainable Design – LEED Silver or better**
 - Integrated Design Process
 - Environmental and Energy Quality Improvements
- **Site Constraints**
 - Relationship to Surrounding Developments
 - Terrain, Wetlands, Noise & Odor Control
 - Access & Traffic (Equipment, Automobile, Pedestrian)
- **Aesthetic Considerations**
 - Visibility
 - Washington Grove

**AERIAL PHOTO**

EQUIPMENT MAINTENANCE OPERATIONS CENTER
MONTGOMERY COUNTY/JUNE 2009

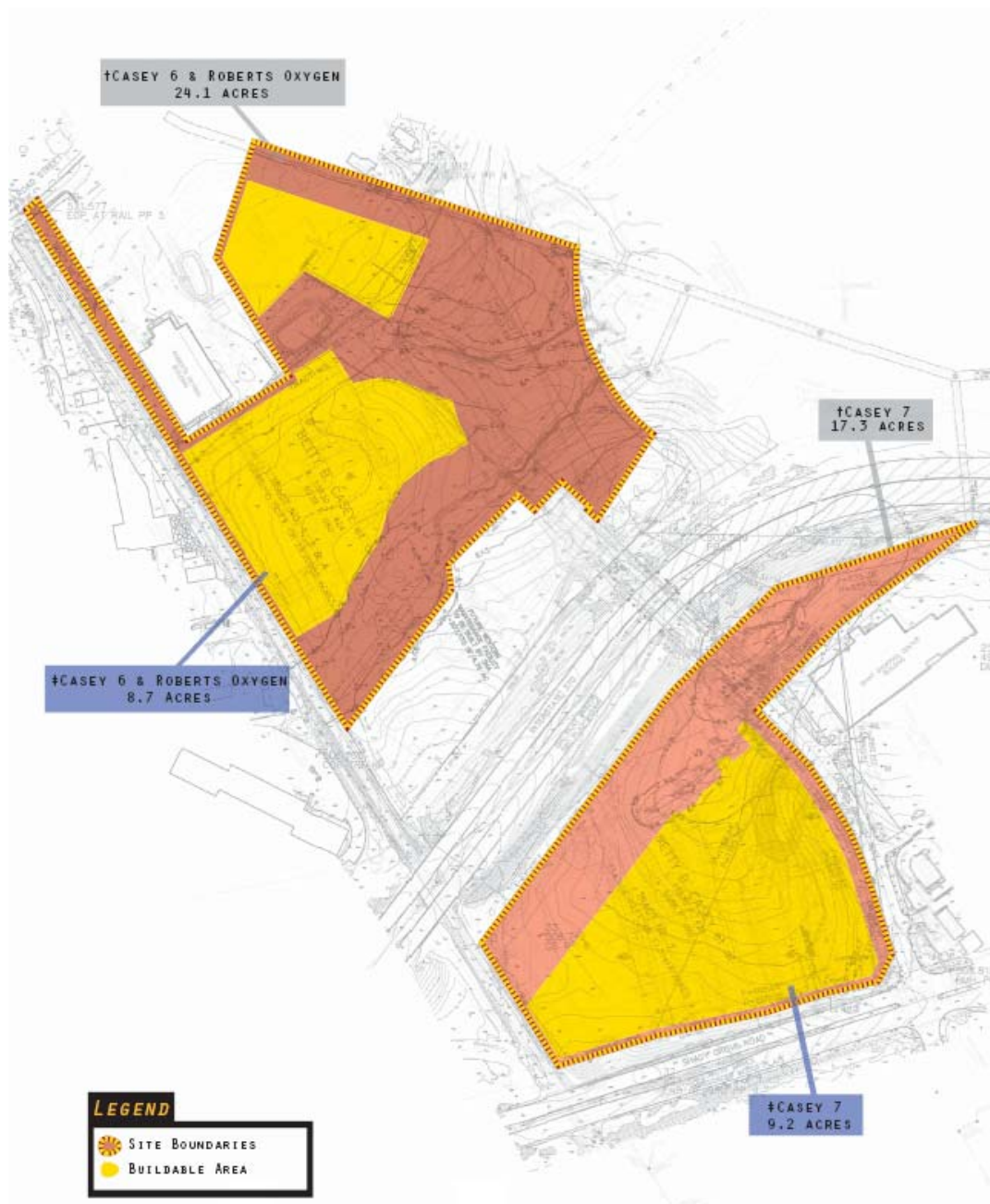
BIRD'S EYE VIEW
ROBERT'S OXYGEN SITE





SECTOR PLAN

EQUIPMENT MAINTENANCE OPERATIONS CENTER
MONTGOMERY COUNTY/JUNE 2009

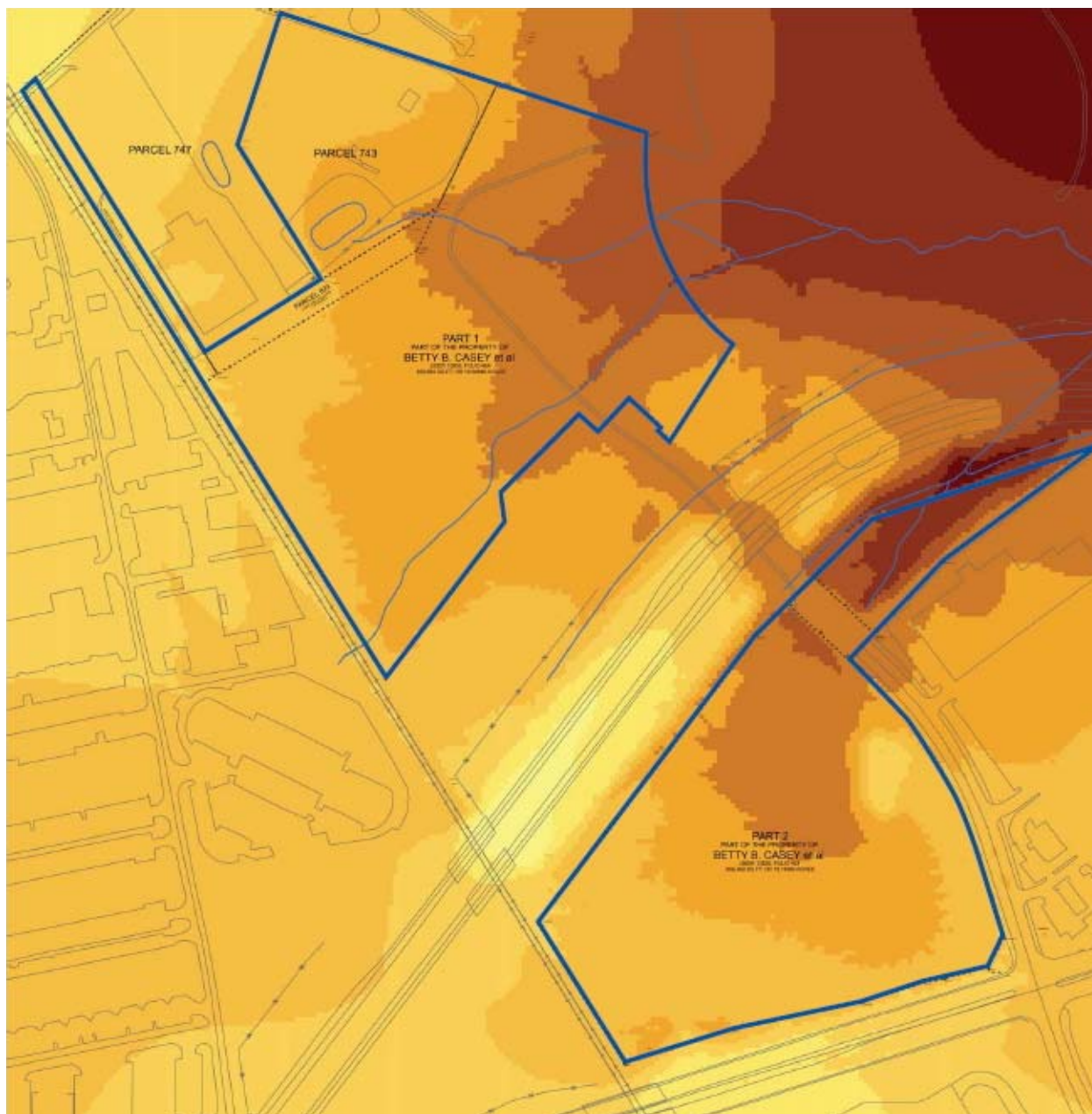


†TOTAL SITE ACREAGE: 41.4 ACRES

‡TOTAL BUILDABLE ACREAGE: 17.9 ACRES

SITE AREA

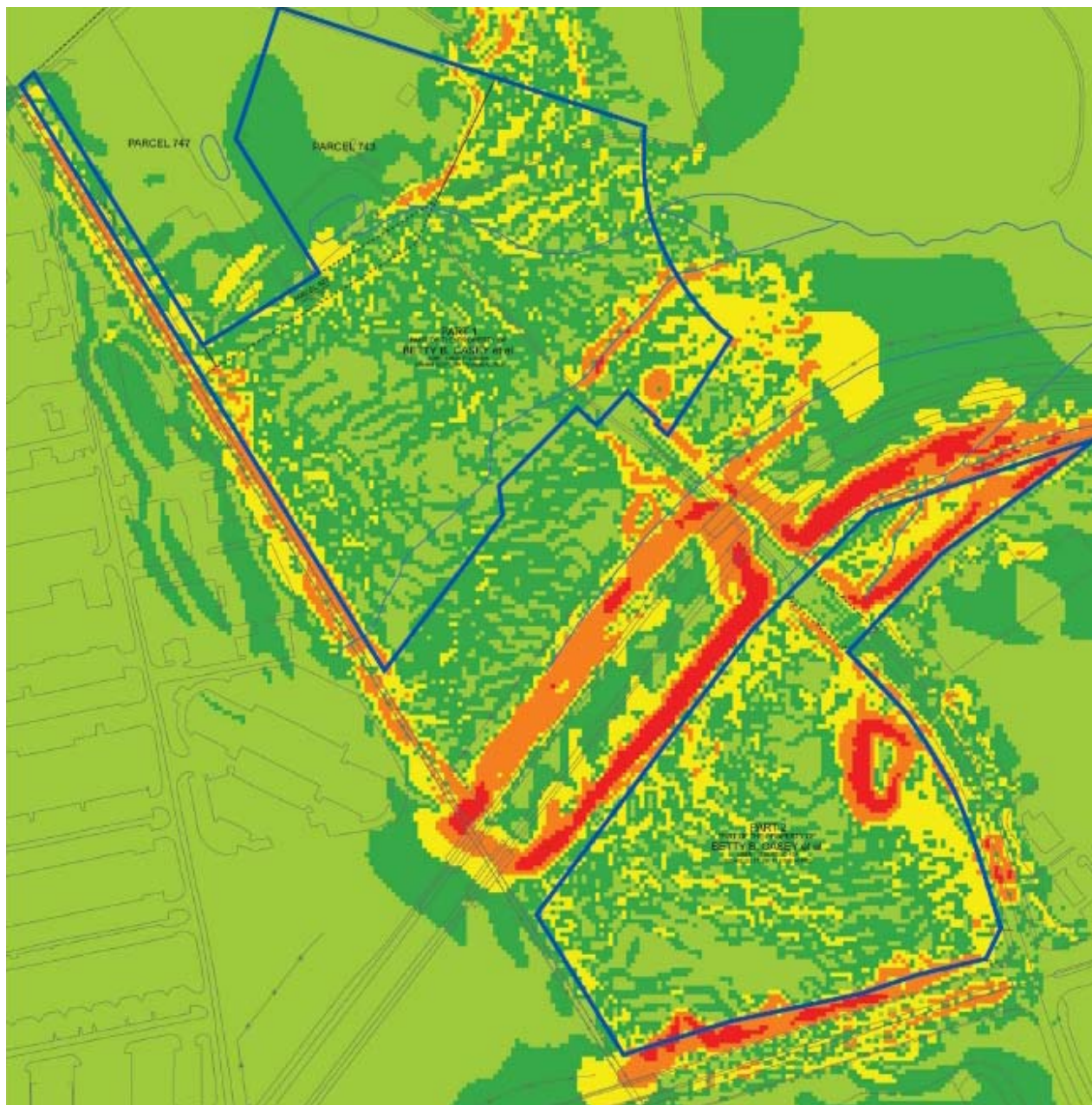
EQUIPMENT MAINTENANCE OPERATIONS CENTER
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**LEGEND****ELEVATION (FEET)**

- 458-466
- 466-475
- 475-484
- 484-493
- 493-502
- 502-511
- 511-520
- 520-529
- 529-538

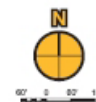
**SITE ELEVATION ANALYSIS**

EQUIPMENT MAINTENANCE OPERATIONS CENTER
MONTGOMERY COUNTY/JUNE 2009

**LEGEND**

SLOPE (PERCENTAGE OF INCLINE)

- 0-3
- 3-7
- 7-15
- 15-33
- 33-81

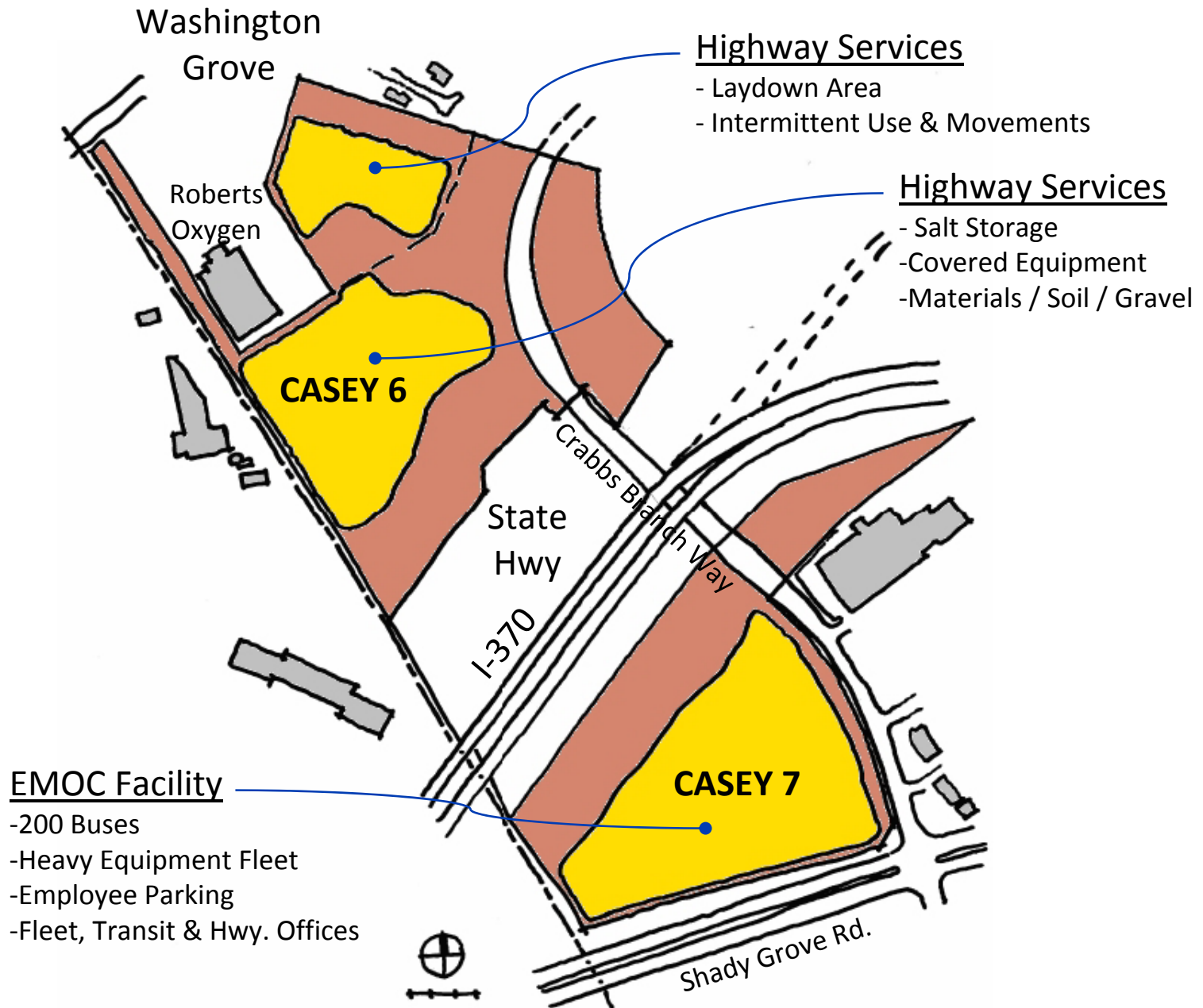
**SITE SLOPE ANALYSIS**

EQUIPMENT MAINTENANCE OPERATIONS CENTER
MONTGOMERY COUNTY/JUNE 2009

Proposed Site Allocation

June 29, 2009

12



Baker Summary of June 29th Discussions

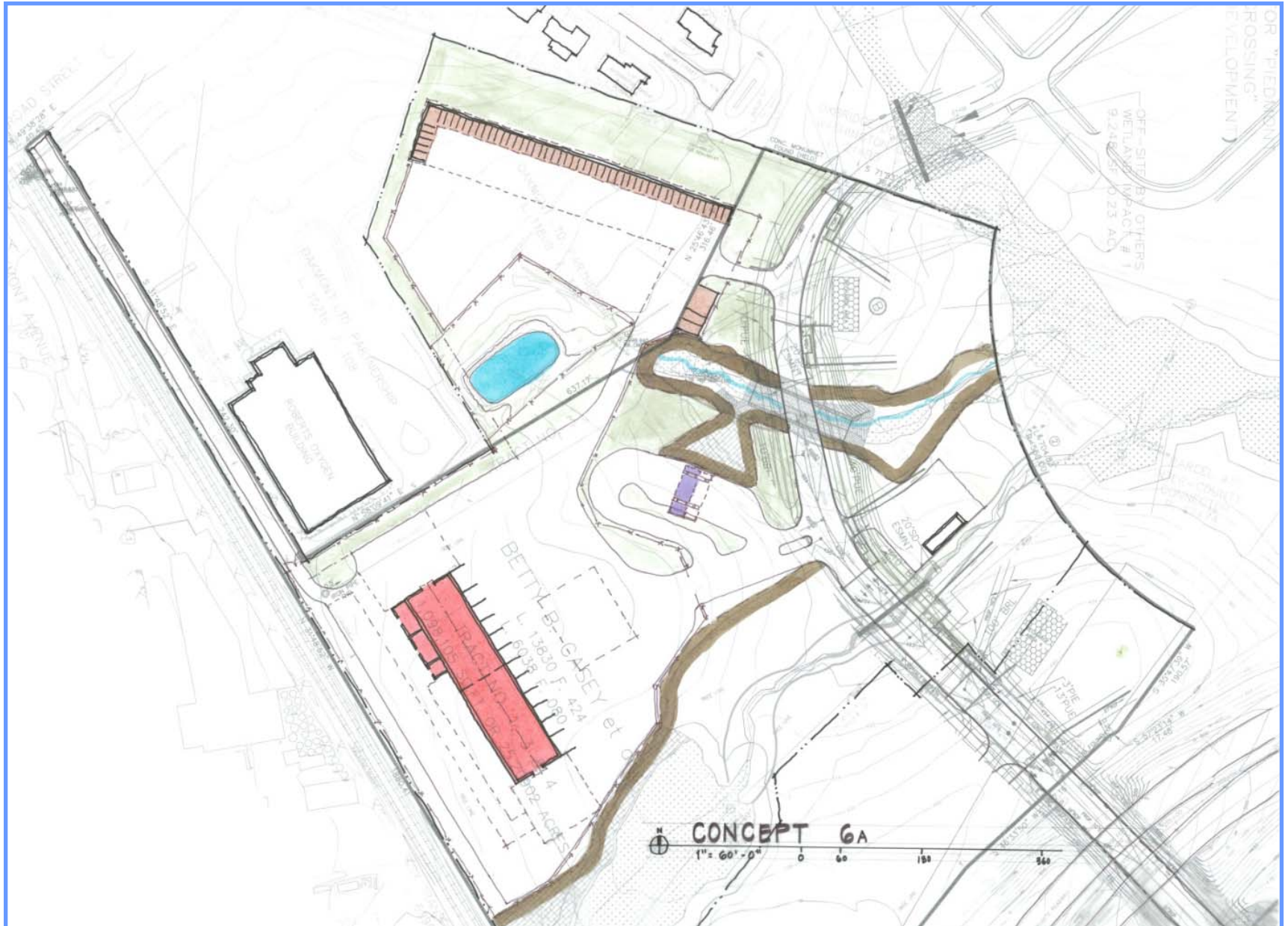
Refer to handout

Summary of June 29th Discussions

- **Heat Islands**
- **Location of Fuel**
- **Noise Generation and Mitigation**
- **Community Benefits**
- **Access to I-370**
- **Discussion Points for the Department of Transportation**
- **Access to Roberts Oxygen**

Concept Designs

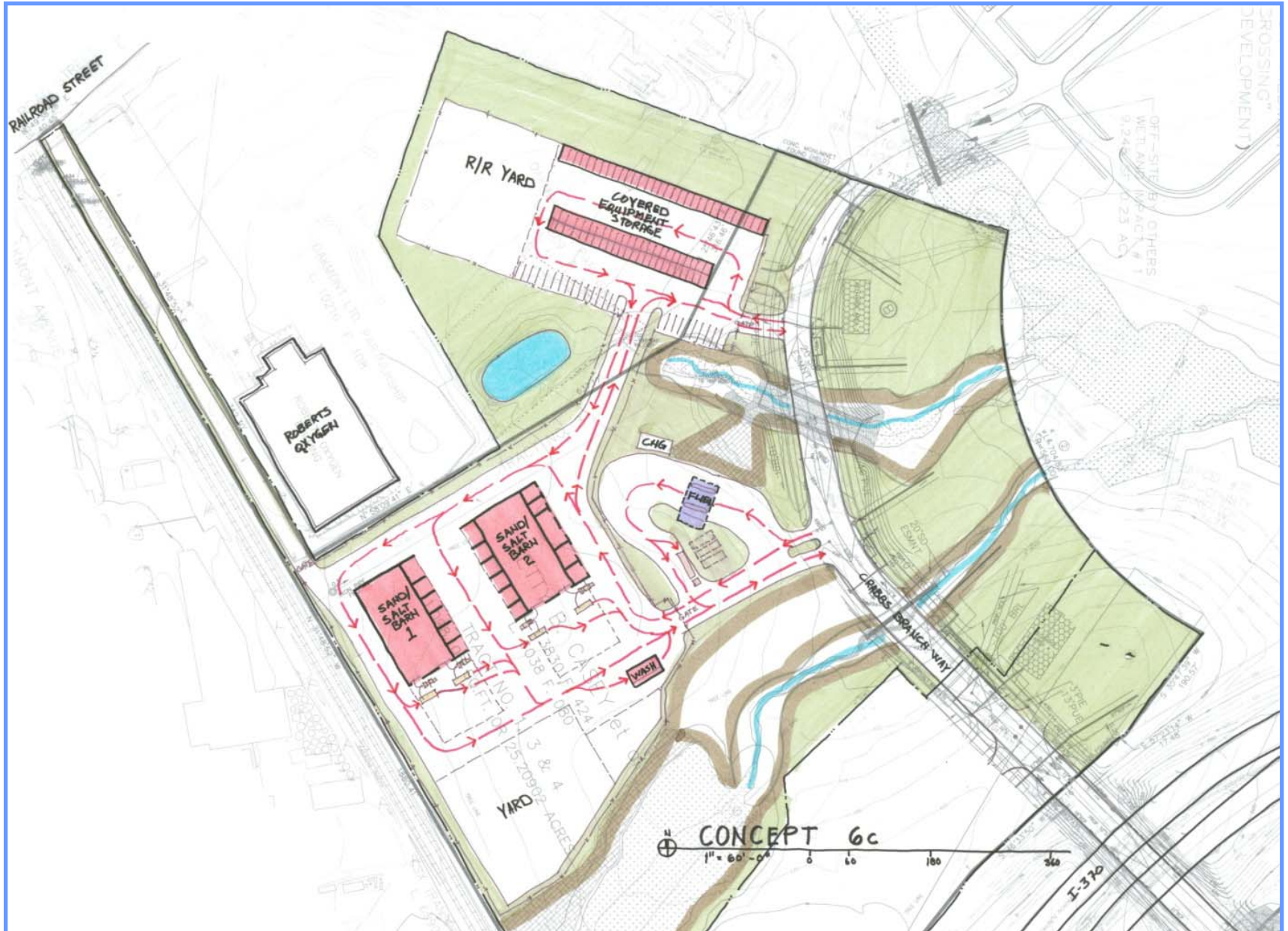
Concept Design 6A



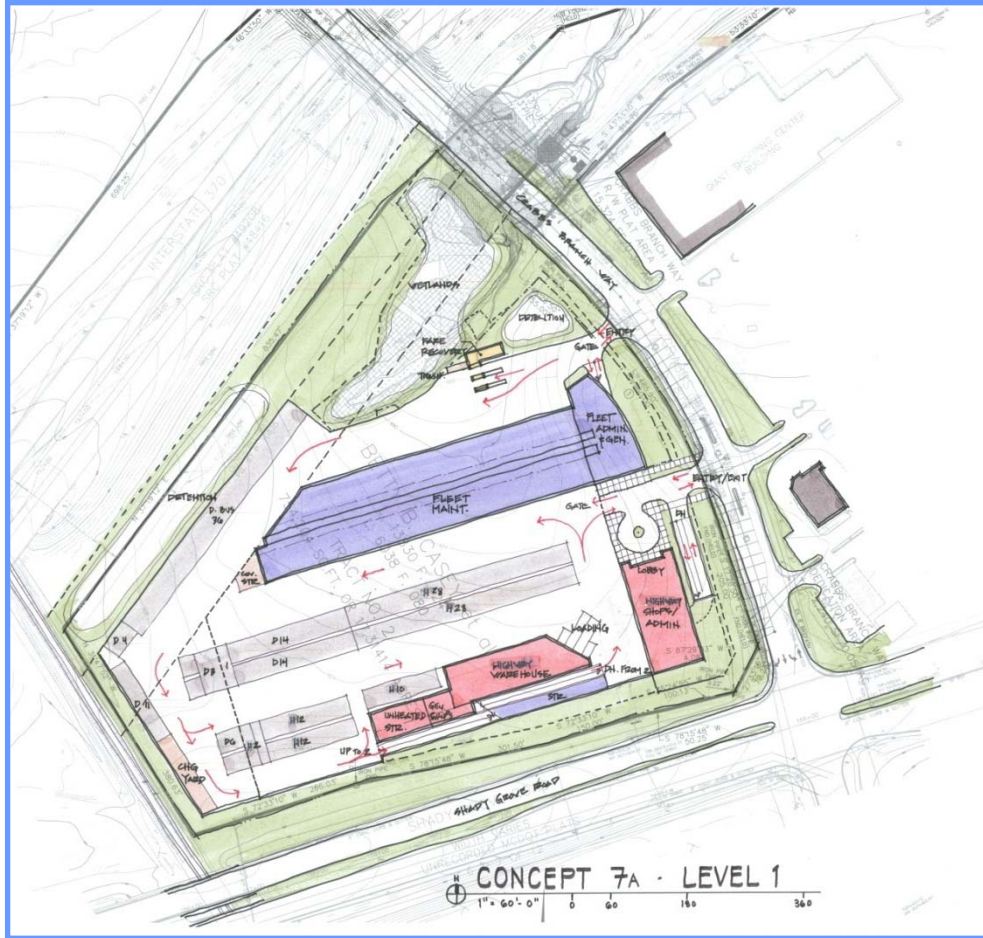
Concept Design 6B



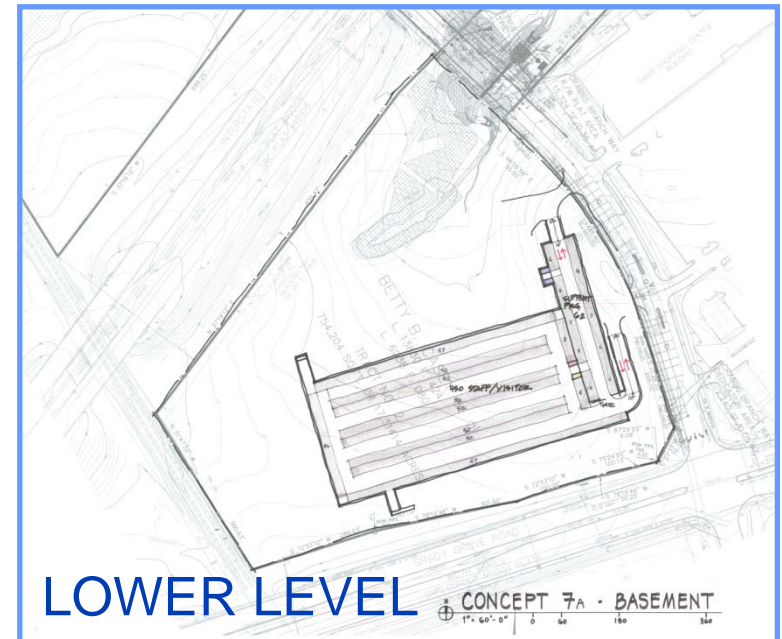
Concept Design 6C



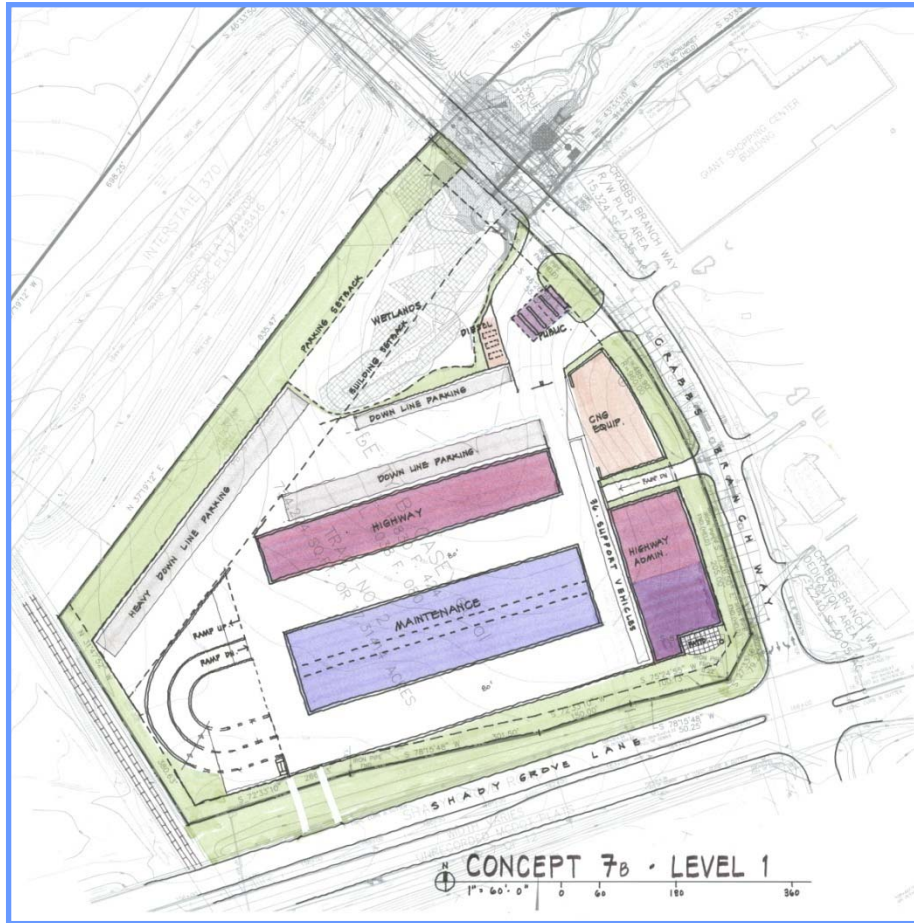
Concept Design 7A



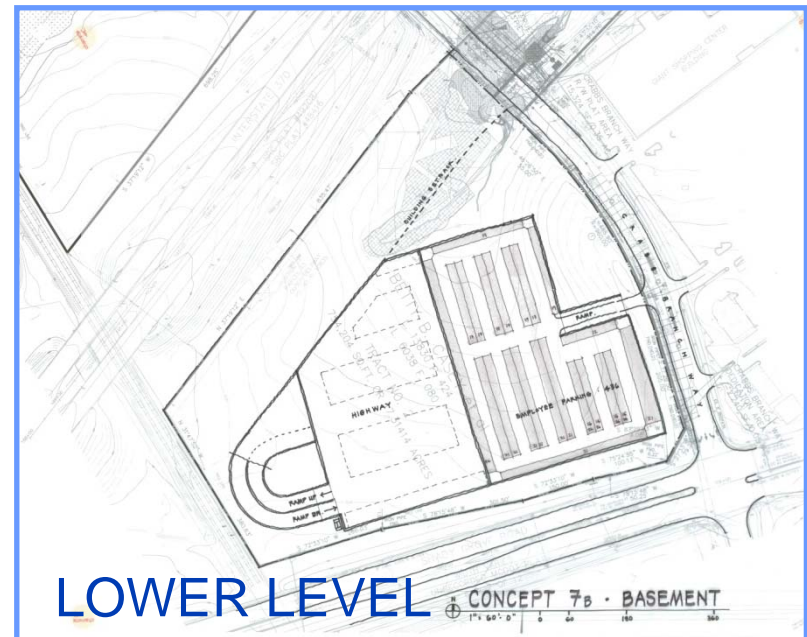
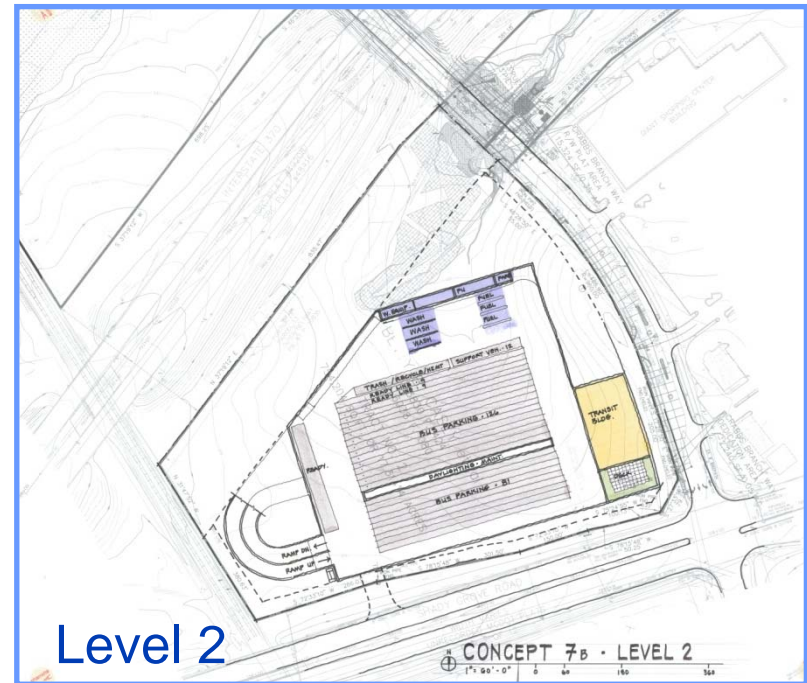
Level 1



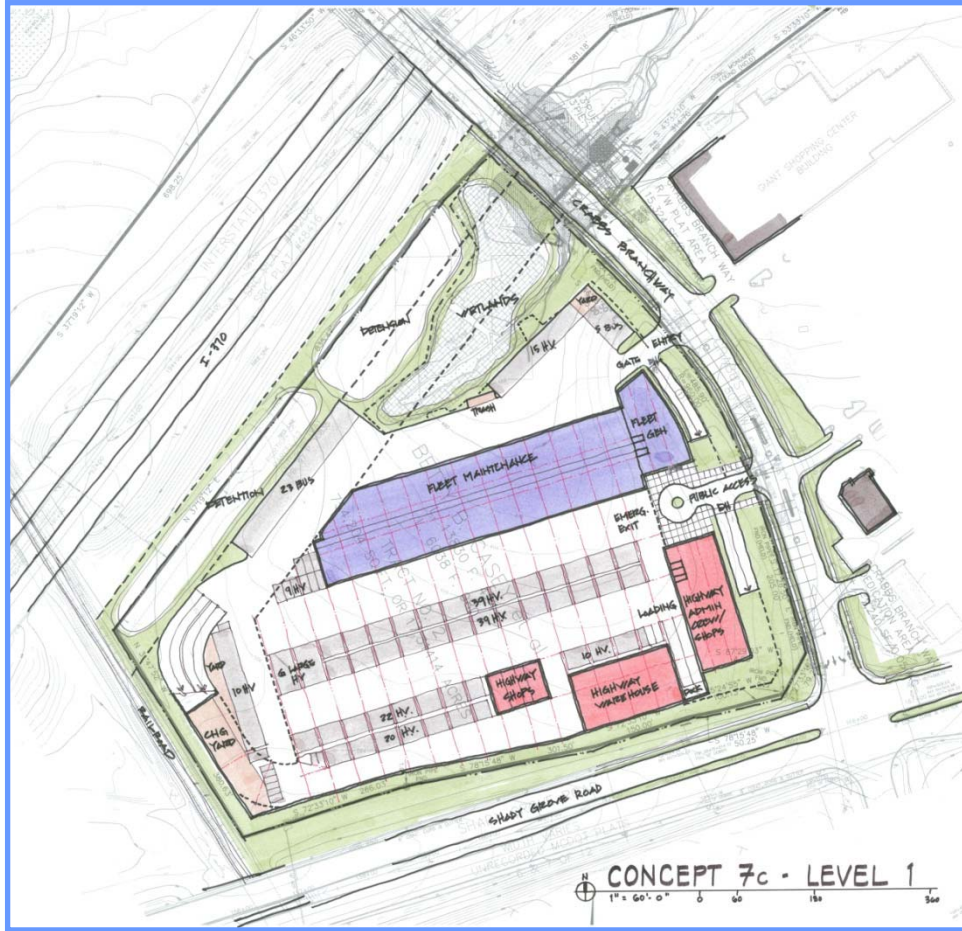
Concept Design 7B



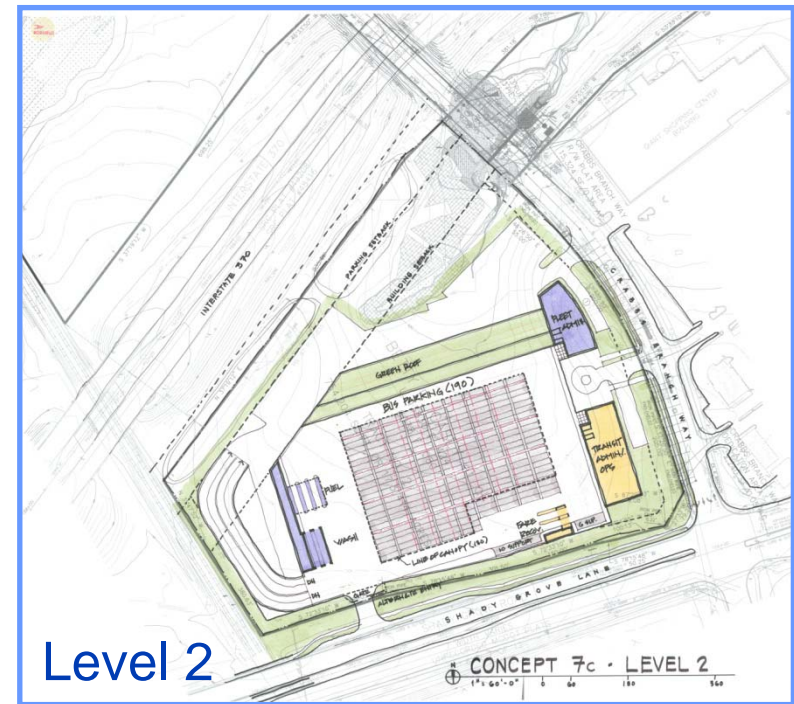
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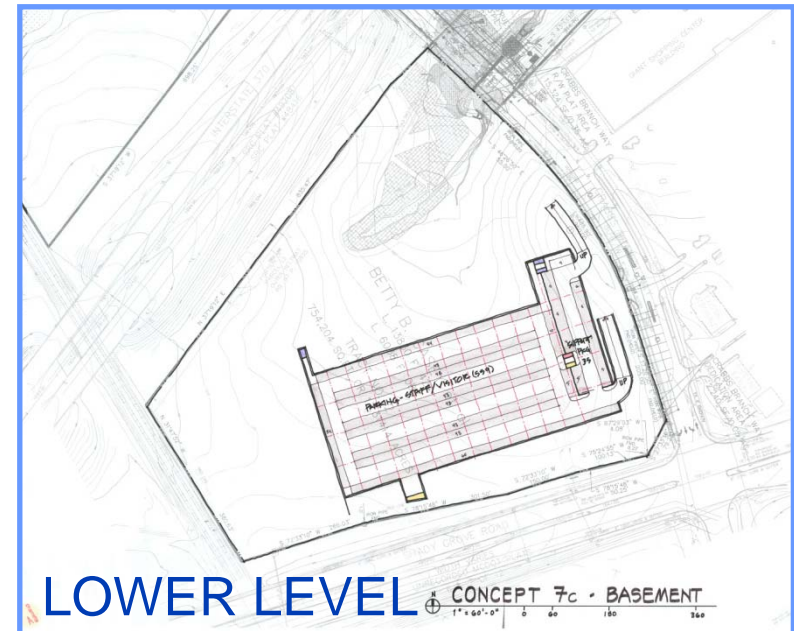
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Level 1

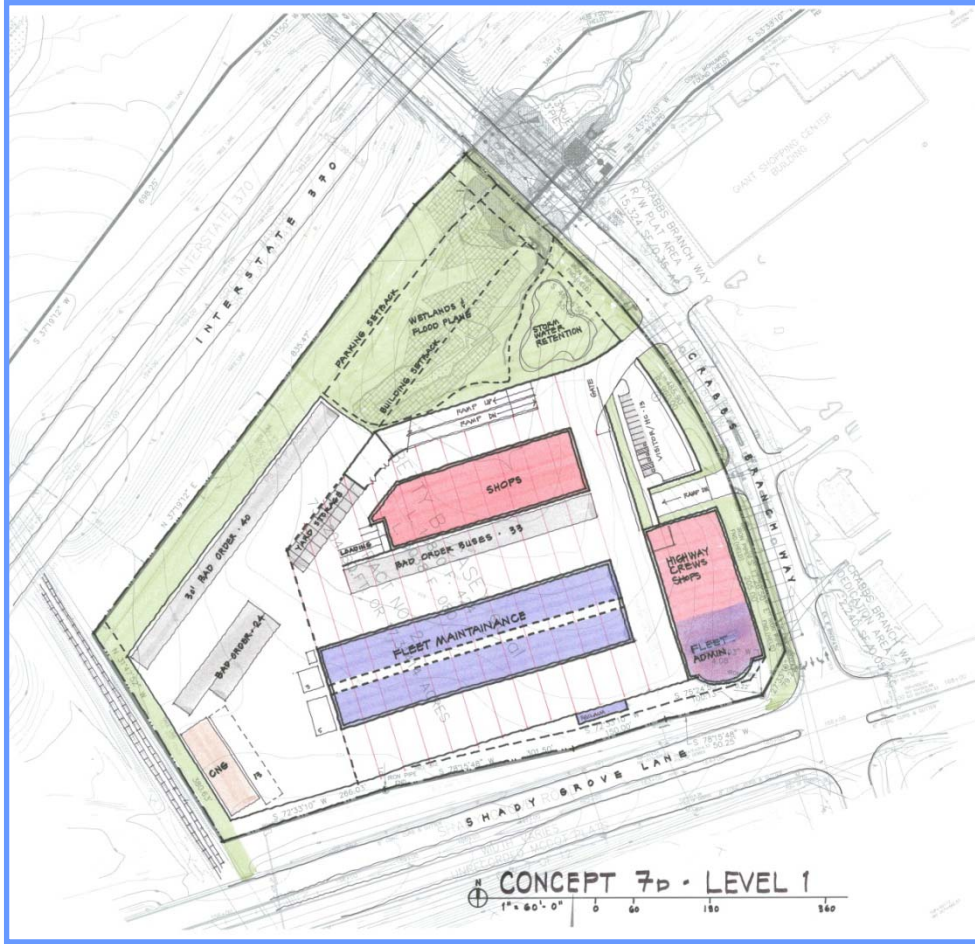


Level 2



LOWER LEVEL

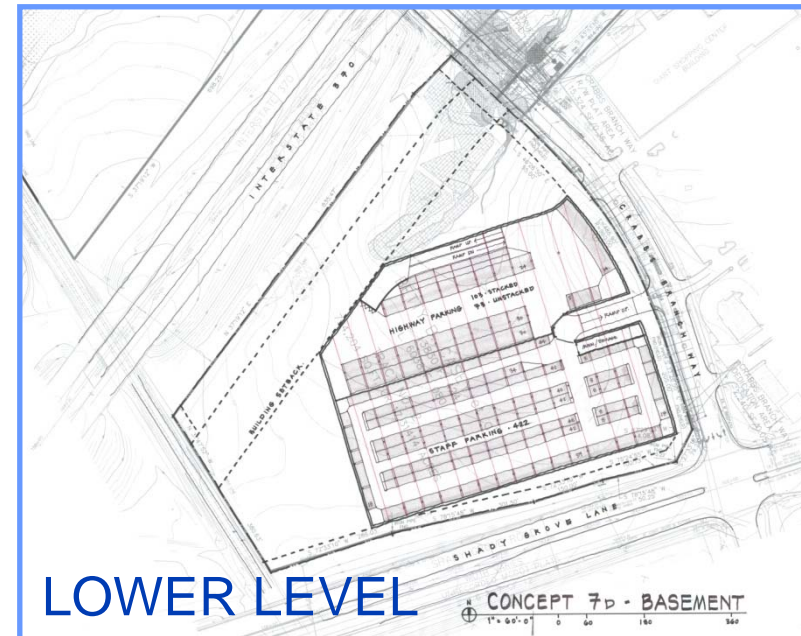
Concept Design 7D



Level 1

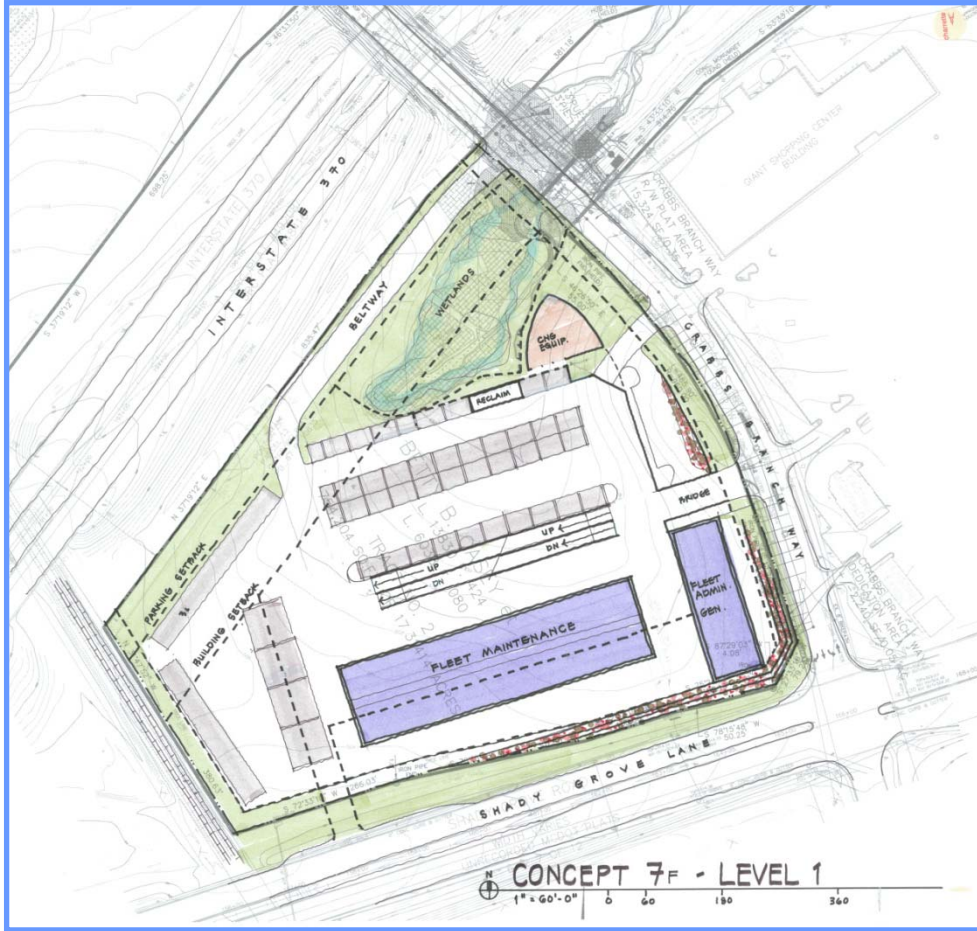


Level 2

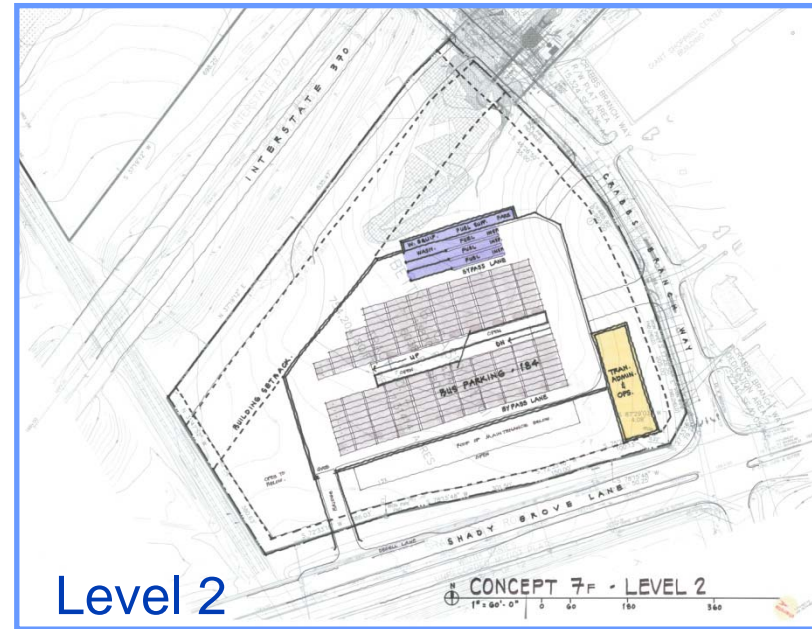


LOWER LEVEL

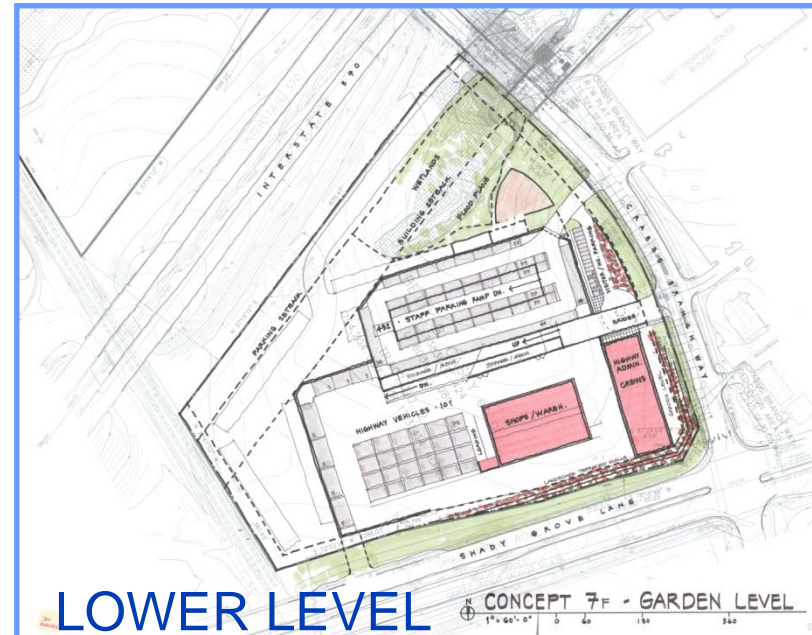
Concept Design 7F



Level 1



Level 2



LOWER LEVEL

Design response to community requests

Heat Islands

- *How will the project account for minimizing the heat island effect due to increased hardscape?*
- **SS-7.1: Heat Island Effect: Non-Roof**
 - Min. of 50% parking under cover with roof to have SRI of at least 29.



Heat Islands (cont.)

■ SS Credit 7.2: Heat Island Effect: Roof

- Option 1: Roofing Material with Solar Reflectance Index (SRI) equal to or great than table for 75% of roof surface.

Roof Type	Slope	SRI
Low-Sloped Roof	≤2:12	78
Steep-Sloped Roof	>2:12	29

- Option 2: Install vegetated roof for at least 50% of roof area.
- Option 3: Install high albedo and vegetated roof surfaces that, in combination, meet criteria:



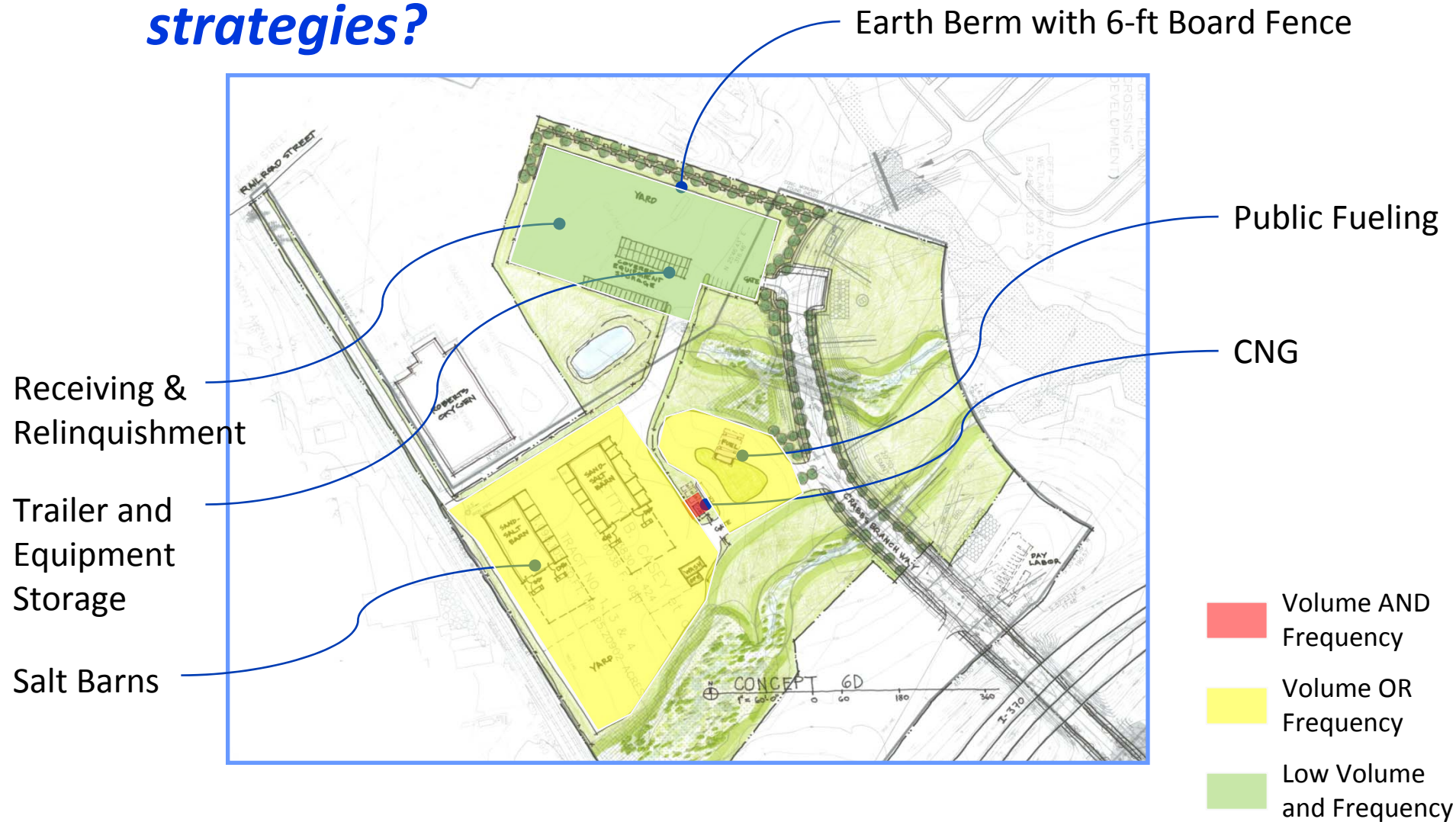
$$(\text{Area of SRI Roof} / 0.75) + (\text{Area of vegetated roof} / 0.5) \geq \text{Total Roof Area}$$

Public Fueling (Unleaded, Diesel, E85, and CNG)



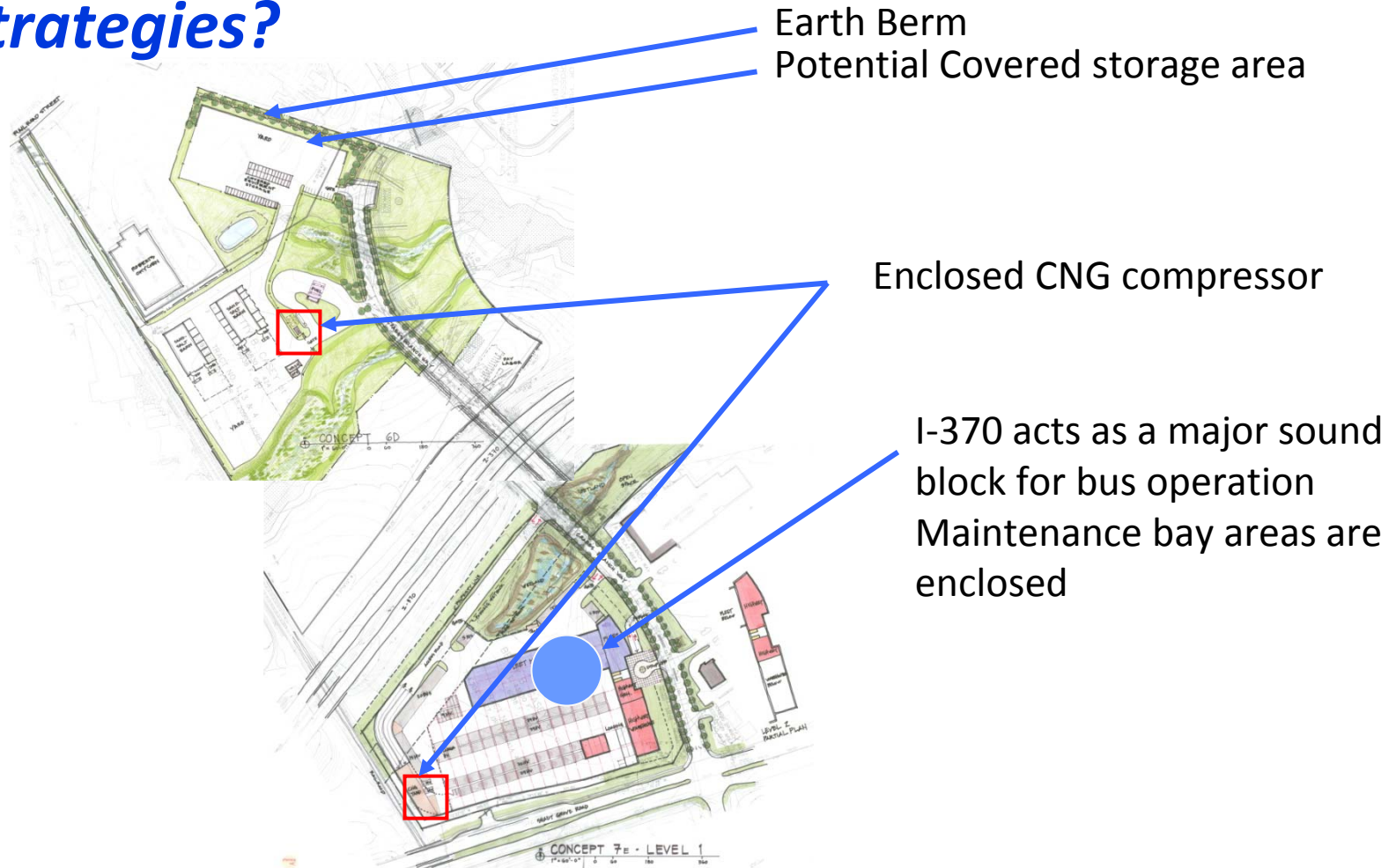
Noise Generation and Mitigation

■ *What are the proposed noise mitigation strategies?*



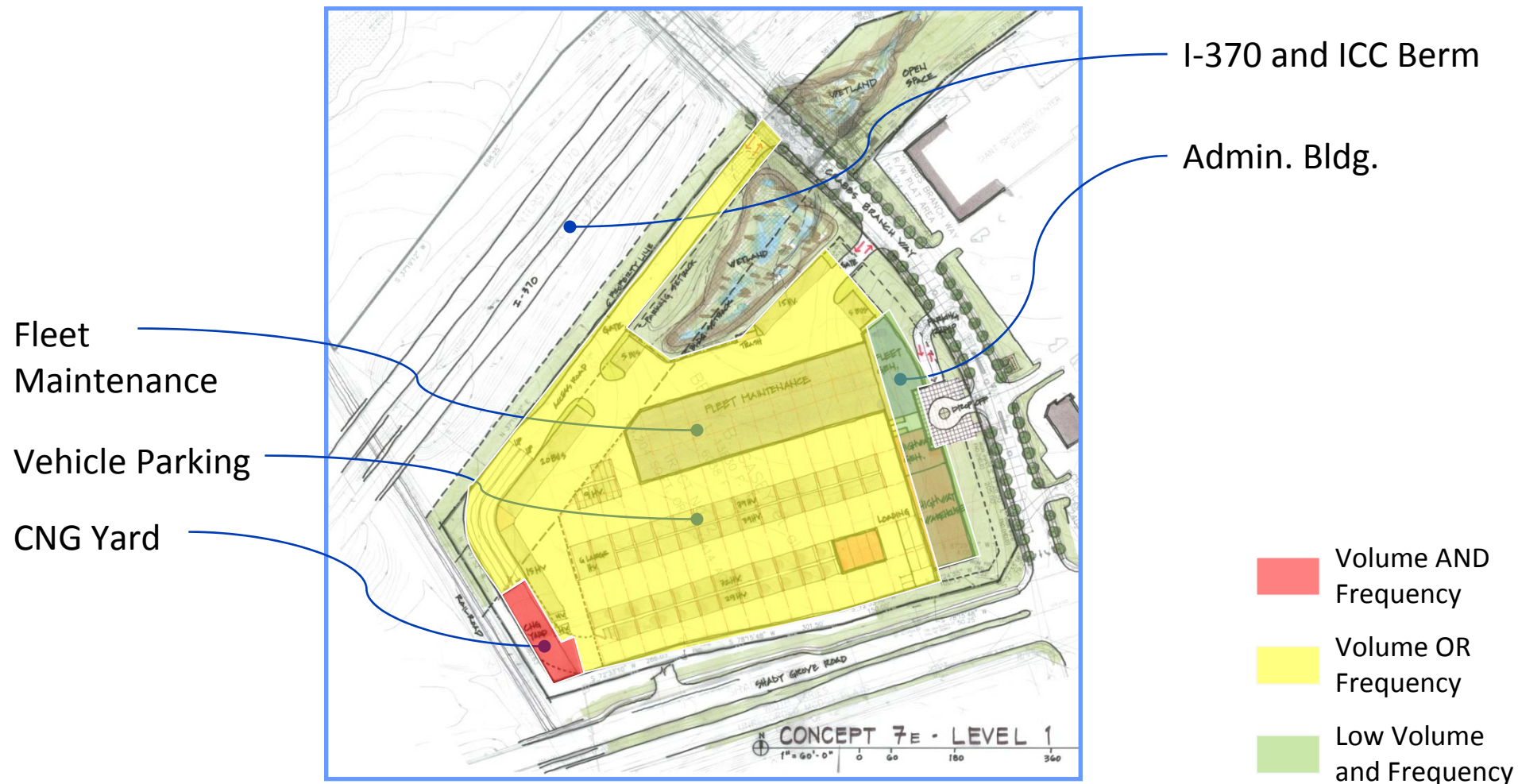
Noise Generation and Mitigation

■ *What are the proposed noise mitigation strategies?*



Noise Generation and Mitigation

- *What are the proposed noise mitigation strategies?*



Discussion Points for Dept. of Transportation

- *Can a traffic calming device be located between Crabbs Branch Way, which is more commercial, and Amity Drive, which is residential?*
- *Can the Crabbs Branch Way extension be realigned to retain the existing break in the mature treeline north of Casey 6?*



Access to Roberts Oxygen

- *Q: Will there be an access driveway to Roberts Oxygen? If so, where?*
- *A: Under investigation – Not in the green buffer area*



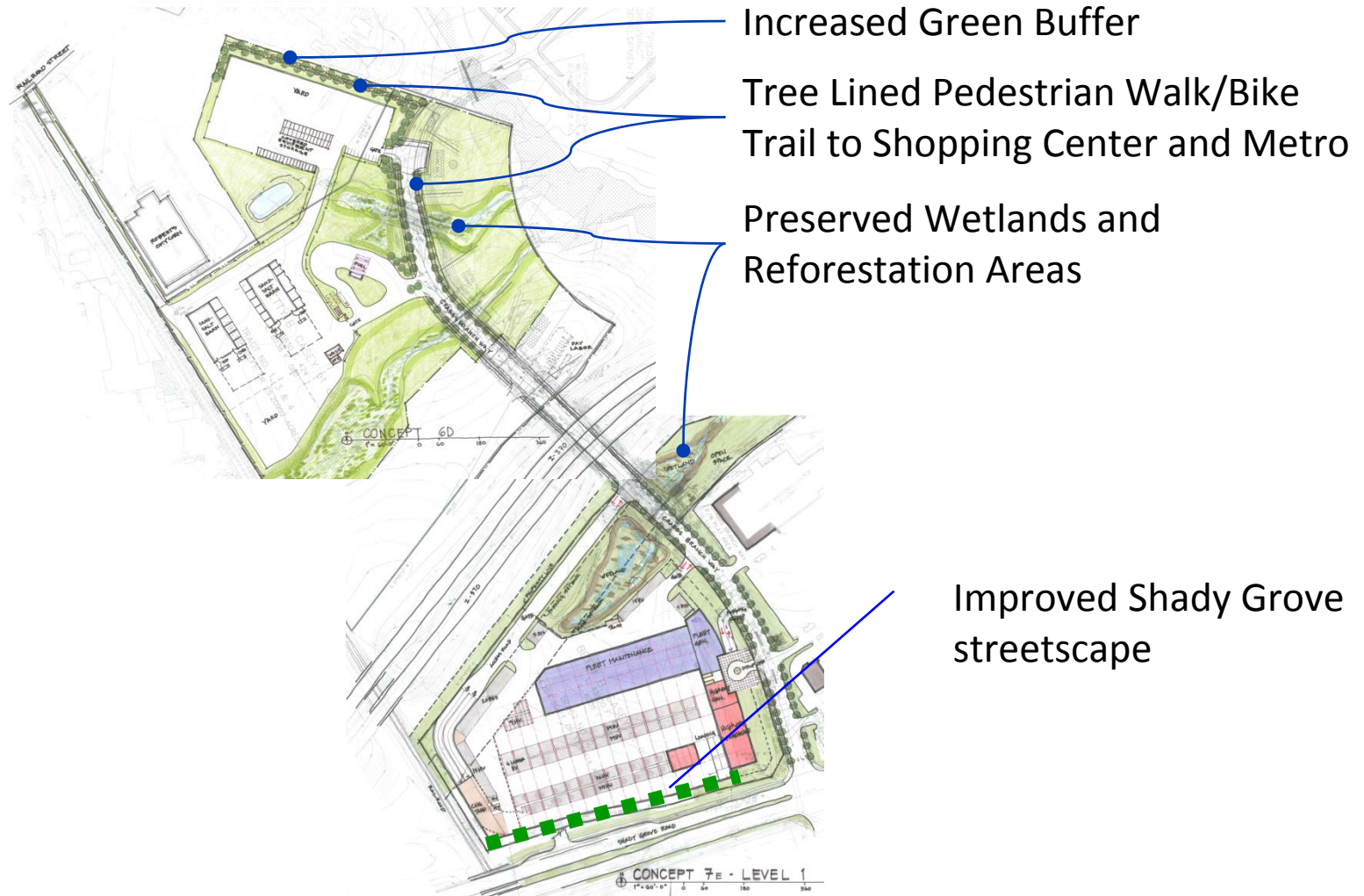
Access to Roberts Oxygen

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Community Benefits

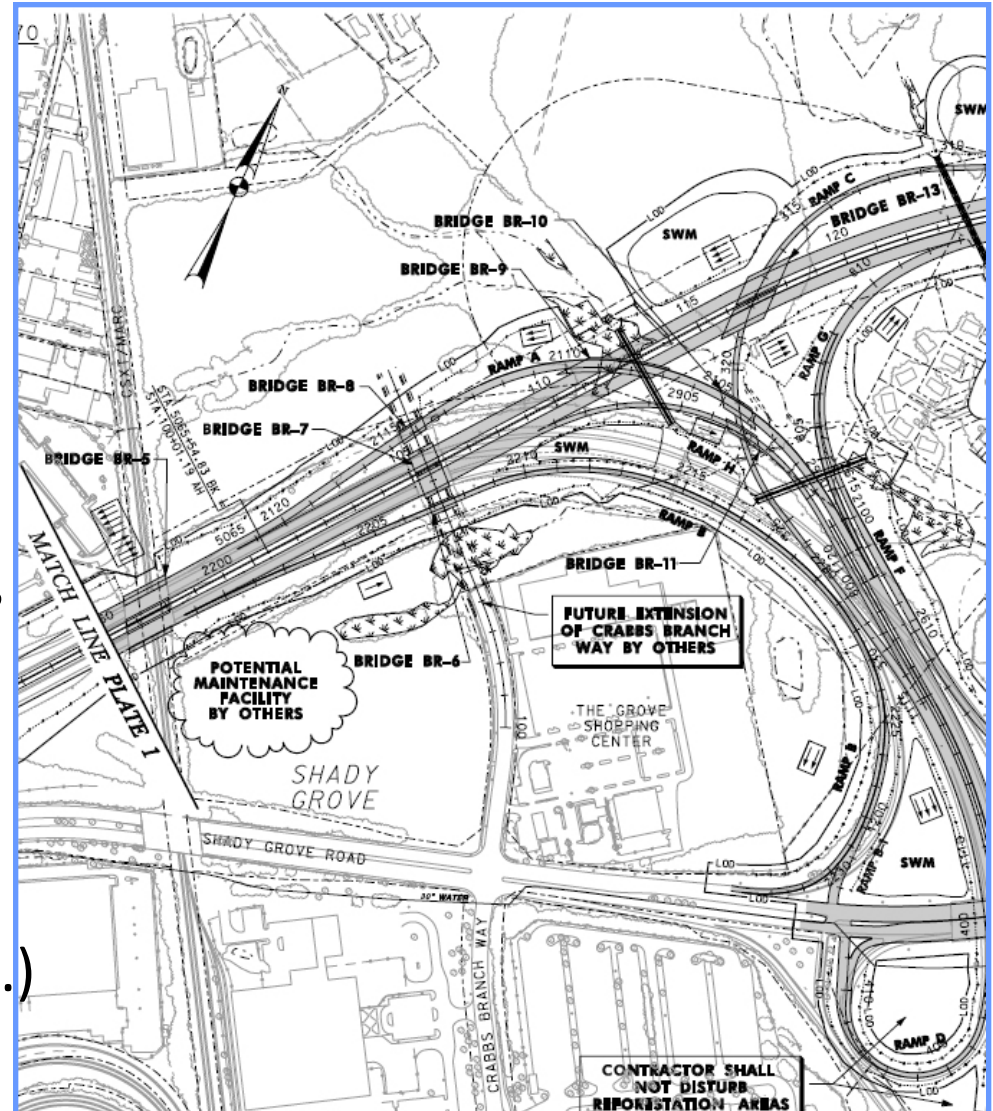
■ *How will the community benefit?*



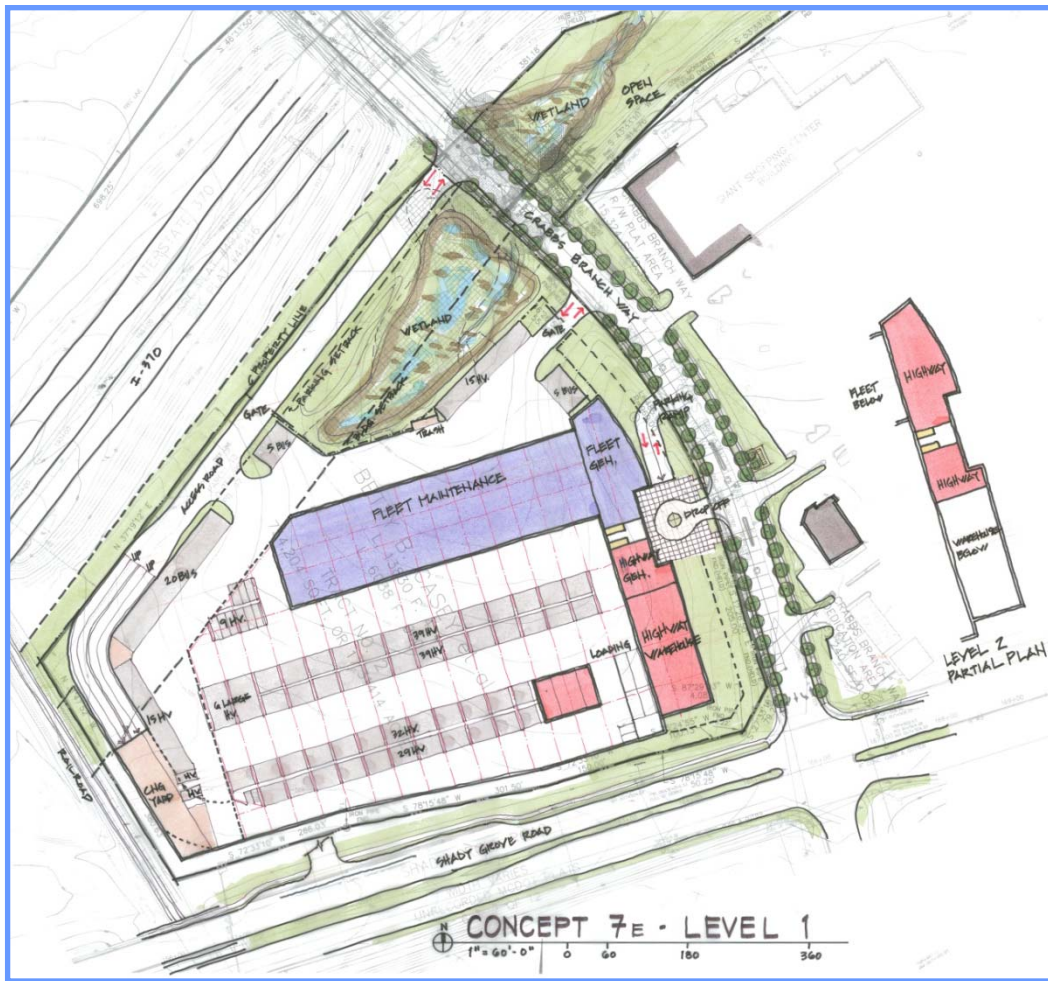
Access to I-370

■ *Could the project incorporate an access directly to I-370?*

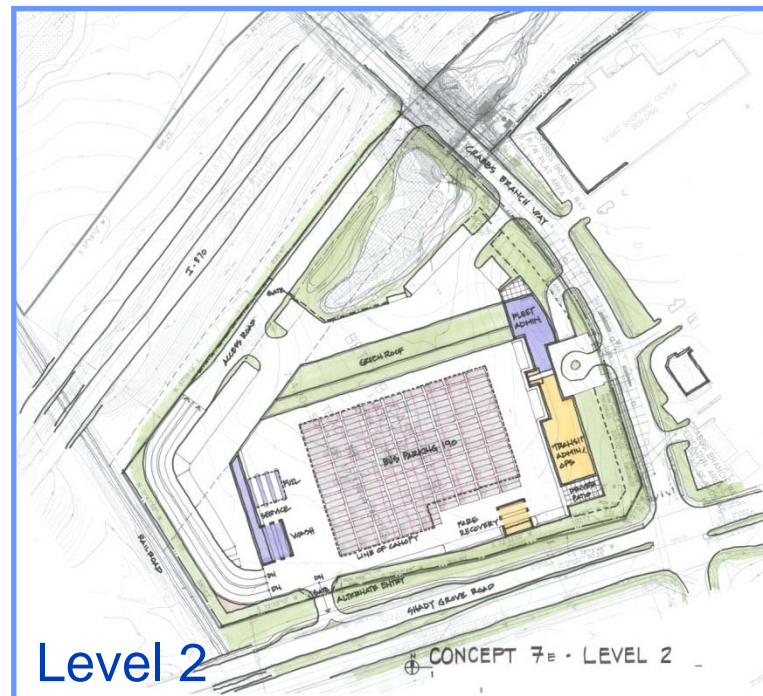
- Review period for an additional ramp would be between 3-5 years.
- Ramps are typically 2 miles apart.
- Site is too small for access ramp requirements (acceleration / deceleration.)



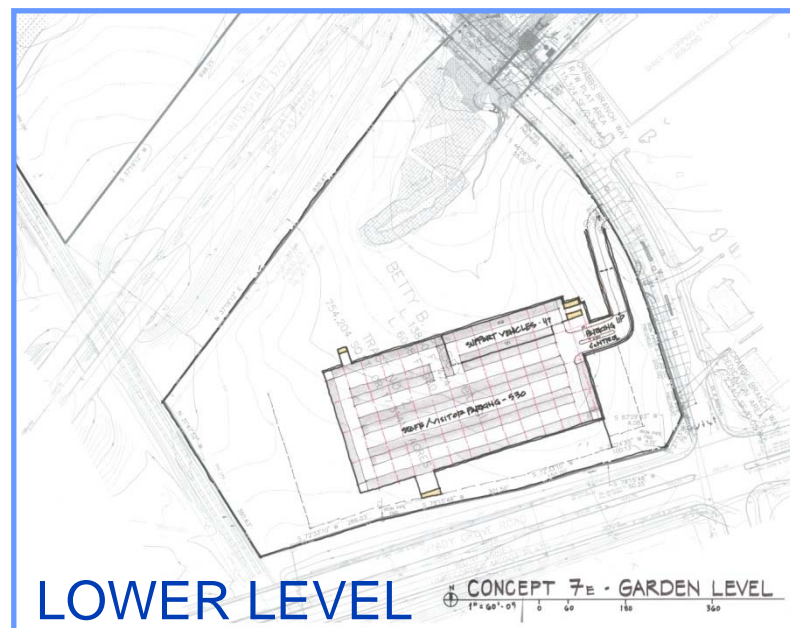
Concept Design 7E



Level 1



Level 2



LOWER LEVEL

Enlarged Plan of Pedestrian Walkway

WASHINGTON GROVE

8' VEGETATED BUFFER
16' PEDESTRIAN & BIKE TRAIL
24' BERM

DIGITIZED G
(APPROX. L

APPROX. 6 FT. WOOD FENCE

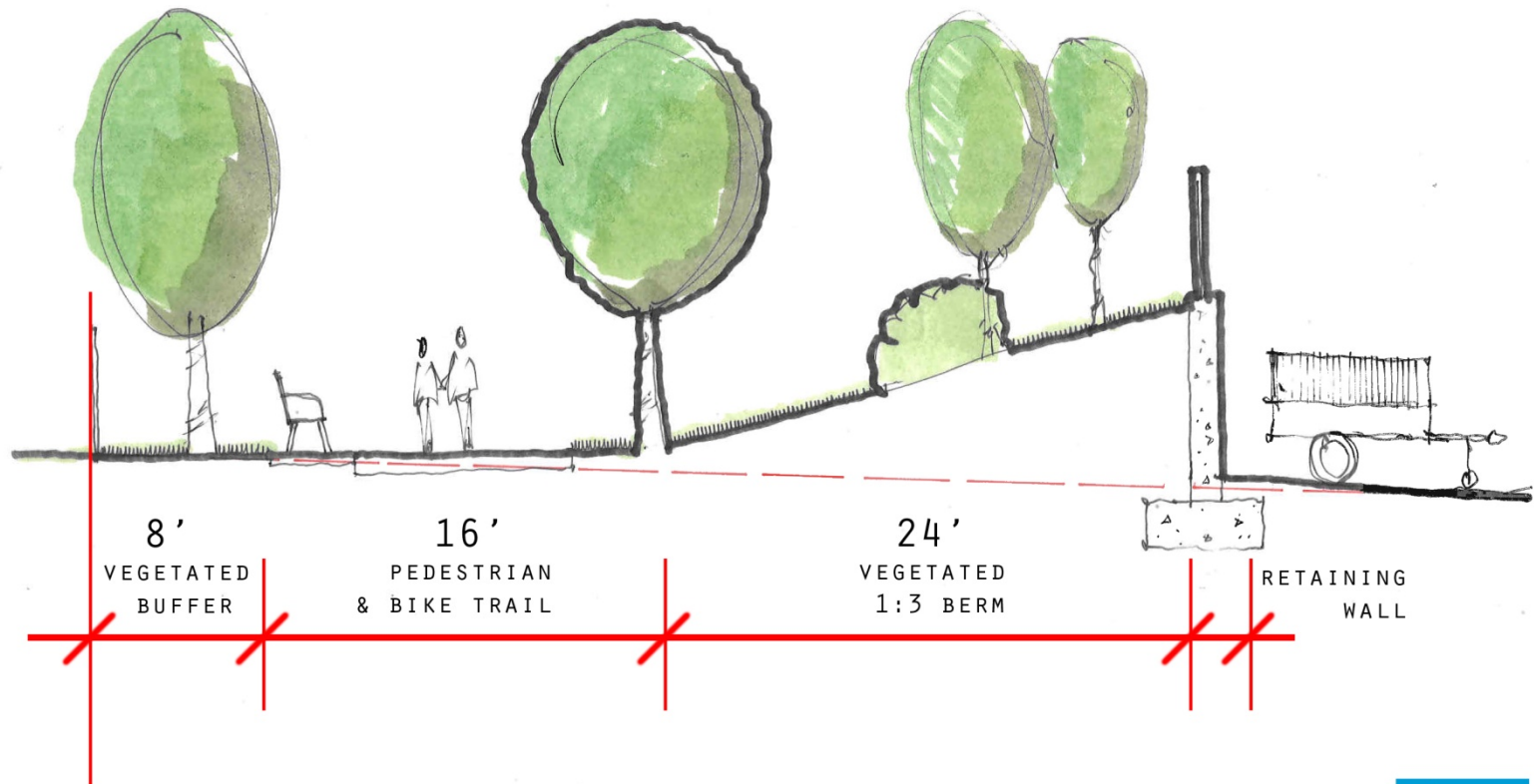
OPEN YARD STORAGE

CASEY 6 SITE

Detail Section of Pedestrian Walkway

WASHINGTON
GROVE

CASEY 6 SITE



Discussion

